

Weight Management

The Controversy Over Weight

The subject of weight is a complex and controversial public health issue for all individuals everyone agrees that an increasing percentage of the population — children, adolescents, and adults — is getting larger and heavier, and that, less active lifestyles play an important role. However, not everyone agrees on how to reverse this trend.

Some researchers and clinicians insist that the health risks for overweight and obese individuals are so great that the only way to decrease the risk is weight loss. Others point to study results indicating that overweight individuals can reduce their health risks by becoming physically fit using exercise and healthy food choices but not necessarily losing weight.

Weight management becomes even more complicated for adolescents because they are experiencing rapid growth and development that may be jeopardized by unsupervised caloric restrictions.

How Are “Over-Weight” and “Obesity” Defined?

Most people rely on a scale to determine if they are overweight. A more accurate method is the Body Mass Index (BMI), a clinical screening tool that uses weight in relation to height to determine an individual's risk for being overweight or underweight. BMI can be calculated using the following formula:

$$\frac{\text{(weight in pounds)}}{\text{(height in inches)}^2} \times 703 = \text{BMI}$$

For those who avoid mathematical computations, pre-calculated charts are available (see the BMI Charts in Appendix Four). If individuals know their height in inches and their weight in pounds, they can find their BMI.

While the BMI alone is an appropriate screening tool for adults — who have finished their growth cycle — such methods for assessing overweight or obesity can be misleading or inaccurate when used for adolescents. To determine an adolescent's risk for overweight or obesity, BMI is plotted on charts that indicate

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What Are Adolescents Doing About Weight?

Adolescent, overweight or not, are at risk of using unhealthy weight-loss practices. Weight control methods used may include: very low-calorie and unbalanced diets, over-the-counter diet pills, diuretics, laxatives, and self-induced vomiting. Adolescents were recently surveyed about their weight loss practices.

Are You:	1997 Youth risk behavior Survey (YBRS) 9th to 12th Grade Students	
	Girls	Boys
Trying to lose weight?	61%	28%
Dieting to lost Weight?	47%	19%
Vomiting or using laxatives?	7%	3%
Using diet pills	8%	3%

percentile by age. These growth charts were revised by the National Center for Health Statistics and the Centers for Disease Control and Prevention; they were released for use in May 2000 and have been included later in this section.

Adolescents with BMIs greater than the 85th percentile for their age group are said to be “at risk for overweight,” those with BMIs greater than the 95th percentile are identified as “at risk for obesity.” However, like a simple weight measurement, the BMI does not identify what percentage of an individual’s body is fat.

Body fatness varies greatly within normal weight individuals (those who fall between the 5th and 85th percentile). It can range from approximately 12% to 30% of body weight as fat, depending upon how much exercise the individual does (Klish, W., 1999). The BMI also does not measure the percentage of weight due to bone

or muscle. Bigger, more muscular teens are not necessarily overweight, just as tall, slim teens are not necessarily under-weight.

What Contributes to Adolescent Overweight/Obesity?

Genetics

It has been known for a long time that fat parents make fat children, even if they are not living in the same home. Therefore, it should not be surprising that several different genes have been identified that affect appetite or metabolic rate.

These genes exist in various combinations in humans because they probably offer survival advantage. During periods of food availability, they increase the

efficiency of fat deposition so an individual can survive longer during periods of starvation (Klish, W., 1999).

Environment

- ◆ *Inactive lifestyle* (see Section 9: *Physical Activity* guideline)
- ◆ *Eating behaviors* and the easy availability of high calories and high fat foods (see Section 2: *Adolescent Nutrition/Screening for Risk* guideline)
- ◆ *Family dysfunction*: Adolescents may respond to uncomfortable emotions related to neglect or abuse with compulsive overeating or excessive inactivity (e.g., watching too much television)
- ◆ *Body image* (see Section 7: *Body Image and Disordered Eating* guideline)

Medical Problems

- ◆ *Asthma*: Adolescents may curb activity level to avoid asthma attacks.
- ◆ *Diabetes*: Insulin doses may be increased to hide binge eating.
- ◆ *Orthopedic problems*: These may be used as an excuse for inactivity



Consequences of Adolescent Dieting

Weight loss and dieting are big business in the United States. The weightloss industry (including diet books, diet fads, diet programs, and other weight loss gimmicks) generates more than \$40 billion in income per year. Adolescents are especially vulnerable to the marketing techniques of this industry. (See Section 7 : *Body Image and Disordered Eating* guidelines.) But at what cost to their health.

All adolescents who diet are at risk for compromised health and well-being. Low-calorie diets or fad diets that allow only a few types of foods can cause serious effects such as:

permanently stunted growth	delayed sexual development
menstrual irregularities	weakness
fatigue	dizziness
depression	persistent irritability
constipation	poor concentration
sleep difficulties	bad breath, hair loss, dry skin

In addition, dieting precedes the onset of most cases of eating disorders. (See Section 7: *Body Image and Disordered Eating* guideline.) And — diets don't work! Ninety-five percent of people who lose weight are unable to maintain these losses. (See handout "Why Diets Don't Work.")

- ◆ *Prescription drug side effects:* Some drugs affect weight by increasing appetite; others may have hormonal effects that cause weight gain.

Adolescents with known weight-related medical problems should be receiving ongoing medical care and counseling. Refer to an appropriate health care provider if necessary

Contraceptives (Rickert, 1996)

Sexually active adolescents should be aware of these potential side effects of hormonal contraceptives on weight.

Combination oral contraceptive pill (OCP):

- ◆ Nausea
- ◆ Fluid retention
- ◆ Weight gain, mostly due to fluid retention or hormonal effects

Progestin-only contraceptive pills, Norplant, depo-Provera (DMPA):

- ◆ Weight gain, mostly due to increased appetite

- ◆ Depression
- ◆ Mood Changes
- ◆ With depo-Provera, weight gain and depression are not relieved until the drug clears the body, which takes an average of 6 to 8 months after the last injection.

Recommendation

It is important that interventions for overweight adolescents do not encourage dieting or promote the achievement of thinness as the goal. Interventions should include modification of eating habits and increasing physical activity for the purpose of improving physical fitness and overall well-being.

Accomplishing these goals is a challenge: physical activity by adolescents tends to decrease with age, while consumption of fast foods and other high-calorie/low nutrient foods and beverages tends to increase, especially as teens begin to spend more time away from home. (For more information on adolescent eating behavior, see Section 2: *Adolescent Nutrition/Screening for Risk* Guideline.)

A family approach to changing eating and physical activity habits has been used successfully with younger children. This approach may not be as effective with adolescents, especially older ones who are both spending less time with their families and striving to be independent and, therefore, may resist parental influence.

Interventions/Referrals

For normal weight clients who consider themselves overweight, it may be helpful to use the BMI chart to reassure them that their weight is appropriate for their age and height. If they are not reassured, use Section 7: *Body Image and Disordered Eating* guideline for interventions and referrals.

For clients at risk for overweight (BMI > 85 percentile) or obesity (BMI > 95 percentile), use the “Action plan for Weight Management” to help the client identify changes in eating behavior that will reduce caloric intake without jeopardizing nutrition. Use the “Eleven Ways to Keep a Healthy Weight” handout to discuss healthy eating habits with them. Use the handout on soda consumption to discuss how drinking soda can affect body weight. Fill and empty 20-oz plastic soda bottle with 1/3 cup of sugar to demonstrate soda’s high sugar content. Also see Section 9: Physical Activity guideline for interventions to increase physical activity.

For clients who insist on dieting, use the “Why Diets Don’t Work” and “To Diet or Not to Diet?” activity sheet to discourage low-calorie or fad diets. The “Promoting Size Acceptance” activity sheet from Section 7 *Body Image and Disordered Eating* guideline can be used to encourage fitness instead of thinness.

TEENS WITH BMIs ≥ 85 PERCENTILE WHO DESIRE WEIGHT LOSS SHOULD BE REFERRED TO A REGISTERED DIETITIAN OR MEDICAL CARE PROVIDER FOR NUTRITION ASSESSMENT AND TREATMENT.

CLIENTS SUSPECTED OF PRACTICING WEIGHT LOSS METHODS THAT MAY BE PLACING THEIR HEALTH AT RISK SHOULD BE REFERRED TO A REGISTERED DIETITIAN FOR NUTRITION ASSESSMENT AND COUNSELING.

To find a registered dietitian in your area, contact one of the following organizations:

California Dietetic Association
7740 Manchester Avenue, #102
Playa del Rey, CA 90293-8499
310-822-0177
<http://www.dietitian.org>

American Dietetic Association
National Center for Nutrition & Dietetics
216 West Jackson Blvd., Suite 80
Chicago, IL 60606
800-877-1600; Consume Hotline: 800-366-1655
<http://www.eatright.org>

Follow-Up

Review the client’s action plan for weight management to determine if she achieved her goal(s) for behavior change.

If the client did not make any changes...

... Explore what barriers prevented her from doing so and discuss possible strategies for removing the barriers.

If the client made changes but still falls short of her goal(s)...

...Revise the action plan with the client to change or add goals for behavior change

... If the client made positive behavior changes...

...Praise her and discuss strategies for maintaining the new behaviors.

Great job!
Keep up the good work!

To Diet or Not to Diet?

Low-calorie diets or fad diets that allow only a few types of foods can have the following effects to your body:

- ▲ permanently stunted growth
- ▲ delayed sexual development
- ▲ menstrual irregularities
- ▲ weakness
- ▲ fatigue
- ▲ dizziness
- ▲ depression
- ▲ persistent irritability
- ▲ constipation
- ▲ poor concentration
- ▲ sleep difficulties
- ▲ bad breath, hair loss,, and dry skin

Some fad diets - including the popular high-protein, low-carbohydrate diets (e.g., Dr. Atkins, Sugar-Busters, The Zone) - can give you headaches and bad breath and make you feel tired or nauseated.

Why Diets Don't Work

Adapted from: FOODPLAY 01995, 221 Pine Street, Northampton, MA 01060 (413) 585-8400

1. When you don't give your body the fuel it requires, it thinks you're starving. Going on very low-calorie diets or skipping meals will cause you to want to binge. This is NOT an eating disorder! It's your body's natural response to starvation.
2. When your body doesn't get the calories it needs, it slows down how fast it burns calories. So rather than helping you to lose weight, dieting actually makes it easier to gain weight.
3. If you don't give your body adequate fuel, it will eventually resort to using its own supplies. However, instead of burning only fat, it will also burn muscle tissue, which is the very thing you want to keep! Burning muscle tissue will make you feel tired, depressed, and without energy. In this state, you are certainly not interested in exercising, which is one of the best ways to keep your body in shape, strong, and healthy.
4. The more you diet, the harder it is to lose weight. Your body gets used to fewer calories and slows everything down. Rather than cutting back on the number of calories you take into your body (through food), the best way to lose weight is to increase the number of calories your body uses each day (through movement). The more active you are, the more energy you'll use up and the less there will be left over to be stored away as fat.

Eleven Ways to Keep a Healthy Weight

Adapted from: FOOOPLAY C1995, 221 Pine Street, Northampton, MA 01060 (413) 585-8400

1. **Don't go on a very low-calorie diet — DIETS DON'T WORK!** When your body doesn't get the calories it needs, it slows down how fast it burns the calories it does get. So rather than helping you to lose weight, dieting actually makes it easier to gain weight.
2. **Try to eat a variety of foods from all groups in the Food Guide Pyramid.**
The more variety you have in your diet, the more you will be able to give your body what it needs: fuel for long-lasting energy and nutrients for growth, repair, and top performance.
3. **Try not to skip meals, especially breakfasts**
Fasting puts a lot of stress on your body and that's what you do when you skip meals, especially breakfast. Without adequate fuel for the morning's activities, most people soon feel tired and irritable — the opposite of energetic and when you're really hungry, you tend to eat more later, especially of the foods that are not the healthiest. Skipping meals always catches up with you later.
4. **Bring healthy foods along with you.**
Bring along a peanut butter and jelly sandwich, bagel and cheese, fruit and yogurt, pretzels, juice, or trail mix when you leave the house. Then you won't have to rely on whatever is most convenient — usually junk foods or fast foods that are filled with fat and extra calories.
5. **Make sure to eat a lot of fresh fruits and vegetables... at least 5 a day! Here are some ideas:**
 - ♥ Choose a 100% fruit juice - like orange juice - instead of soda
 - ♥ Grab a fruit or a salad as a snack
 - ♥ Eat cut-up, fresh vegetables like broccoli "trees" and carrot sticks with a yogurt dip for a TV snack
 - ♥ Microwave or bake a potato and add a dab of yogurt
 - ♥ Add lettuce and tomato to your sandwiches
 - ♥ Eat your vegetables at dinner time

6. Try to listen to your body signals.

Eat when you're hungry; stop eating when you're full. Try not to eat when your body really wants something else. Sleep when you're tired; exercise when you're lethargic (lack energy); breathe deeply when you're stressed; and get involved in fun activities if you're bored. Keep a list close by of all the things you've wanted to do or would do if only you had the time: clean out your jewelry case, sew your jeans, make a photo album, organize your tapes, write letters, paint, do an art project, learn a sport, and so on. Then check that list when you get bored,.

7. Be a fat finder. Choose foods by reading labels and choosing the lower fat choice.

You can eat four apples for the number of calories in a fast food apple pie, or have five cups of unbuttered popcorn for the same calories as in one serving of potato chips (15 chips).

8. Try not to mix eating with other activities, especially watching TV.

Often you wind up eating more without even being conscious of it. If you have to snack while watching TV, chew on lower-fat stuff like plain popcorn, pretzels, fruit salad, or fresh veggies with a yogurt dip.

9. Don't say never - especially to your favorite foods. Just enjoy them a little at a time.

The minute you deny yourself something you want to eat, you end up spending more time and energy thinking about wanting it. Finally, when you do go for it, you often end up eating more than you would have if you had just enjoyed a little of it in the first place. Moderation is always the best way to !go.

10. Have a great time moving your body.

Being active — whether in sports, dancing in your room, or taking a brisk walk — is the best way to feel good, look good, and give your body what it needs. Exercise is also a great stress reducer.

11. Finally, try to appreciate your body for all that it does for you... and discover your own unique beauty, inside and out!

Teens, Sodas, and Weight

Year	Amount of non-diet soda per day	
	Boys (12-19 yrs old)	Girls (12-19 yrs old)
1977-78	7 oz	6 oz
1987-88	12 oz	7 oz
1994-96	19 oz	12 oz

*Growing single-serving soda size
since the 1950s -*



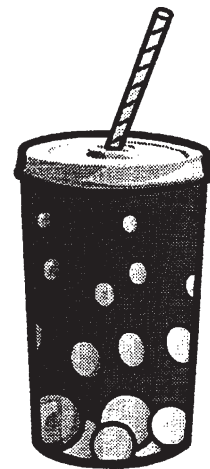
6½ ounces



12 ounces



20 ounces



64 ounces

How Can Soda Affect Your Weight?

One 12-oz can of soda = ~150 calories

One can of soda per day for one year = ~55,000 calories

It takes 3,500 calories to make 1 pound of body weight. Therefore, one 12-oz soda per day translates into **16 pounds** of extra body weight over one year!

One 20-oz bottle = 250 calories

One bottle of soda per day for one year = ~91,000 calories

= **26 pounds** of extra body weight

What Are My Snack Choices? Part I

Adapted from the U.5DA yourSELF program

Every day, you make choices about what you eat. What snack options do you have? Assess your environment — at school, home, and any other place you usually eat. Write down what you find to snack on. As you do, list each option under its Food Guide Pyramid group.

	Bread Group	Veggies Group	Fruit Group	Milk Group	Meat Group	Fats,Oils Sweets	"Combo Foods"
At School... School Cafeteria							
At Home... Refrigerator							
Other Places... Convenience Store							
Fast Food							
Other <hr/>							

What Are My Snack Choices? Part II

Adapted from the USDA yourSELF program

Now that you know what your snack options are, these may - or may not - be all the food choices you need. This is your chance to put a plan in place to expand your food world and to get the food group snacks you want or need.

Consider Your Options. Of all the options you have now, what snacks would you choose today or tomorrow? Write down your choices and why they're best for you.

Choice	Why?

Plan for Change. What would be easy to change... What would be hard to change... What's impossible to change...

	At Home	At School	Other places
Easy			
Hard			
Impossible			

Find **Partners for change** who can help you...

At Home	At School	Other Places

Make a Difference: Share your plan of action with your family, friends, teachers, and others who can help you.

ACTION PLAN for WEIGHT MANAGEMENT

Name: _____ Date: _____

Check the boxes that describe what you are presently doing and what you plan to do:

	AM DOING	PLAN TO DO
I will make a snack change (from high-sugar/high-fat snacks to low-sugar/low-fat snacks)	<input type="checkbox"/>	<input type="checkbox"/>
I will increase my fruit and vegetable servings by _____ per day.	<input type="checkbox"/>	<input type="checkbox"/>
Instead of skipping breakfast, I will try some new ideas for quick and easy morning meals. (Ask your case manager for recipes.)	<input type="checkbox"/>	<input type="checkbox"/>
I will reduce my soda consumption by _____cans per day.	<input type="checkbox"/>	<input type="checkbox"/>
I will cut back on the time I spend watching television or playing video games by _____ hours per day.	<input type="checkbox"/>	<input type="checkbox"/>
When eating at my favorite fast food restaurant, I will use the Fast Food Survival Guide to make healthier choices.	<input type="checkbox"/>	<input type="checkbox"/>
Instead of eating fast food, I will plan a meal and prepare it at home. (For quick and fun recipes, ask your case manager about the recipe booklet).	<input type="checkbox"/>	<input type="checkbox"/>

My idea for weight management:

Signature: _____ Date: _____
(optional)